

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A photodetector comprising:

at least one electron transporting organic material; and

at least one hole transporting organic material,

wherein said at least one electron transporting organic material has an ionization potential of 5.8 eV or more,

wherein said ionization potential of said at least one electron transporting organic material is larger than an energy necessary for the highest-level electron of said at least one hole transporting organic material to be taken out to a vacuum infinite far point,

wherein said ionization potential of said at least one electron transporting organic material is larger than an ionization potential of said at least one hole transporting organic material by 0.6 eV or more, and

~~wherein said at least one electron transporting organic material is a compound represented by formula (I):~~

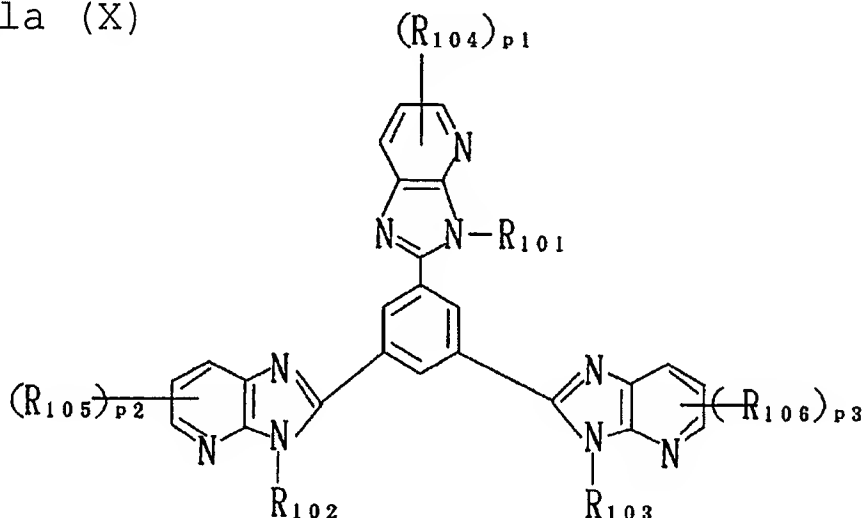
Formula (I)



~~wherein m represents an integer of 2 or more;~~

~~L represents a linking group; and~~
~~each of A's independently represents a hetero ring group where at least two aromatic~~
~~hetero rings are condensed to each other, and A's are the same or different,~~
wherein said at least one electron transporting organic material is a compound
represented by formula (X):

Formula (X)



wherein R_{101} , R_{102} and R_{103} each represent a hydrogen atom, an aliphatic hydrocarbon group, an aryl group or a hetero ring group,

wherein R_{104} , R_{105} and R_{106} each independently represents a substituent,

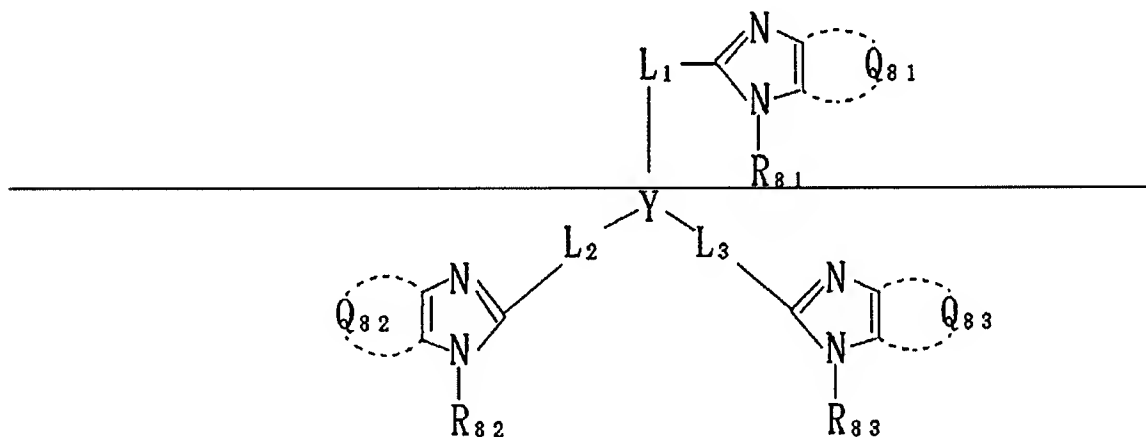
wherein the substituent is an alkyl group, an alkenyl group, an alkynyl group, an aryl group, an amino group, an alkoxy group, an aryloxy group, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, an acyloxy group, an acylamino group, an alkoxycarbonylamino group, an aryloxycarbonylamino group, a sulfonylamino group, a sulfamoyl group, a carbamoyl group, an alkylthio group, an arylthio group, a sulfonyl group, a

sulfinyl group, a ureido group, a phosphoric acid amido group, a hydroxyl group, a mercapto group, a halogen atom, a cyano group, a sulfo group, a carboxyl group, a nitro group, a hydroxamic acid group, a sulfinio group, a hydrazine group, an imino group, a hetero ring group, or a silyl group.

wherein p1, p2 and p3 each independently represents an integer of 0 to 3

~~formula (VIII):~~

Formula (VIII)



~~wherein Q₈₁, Q₈₂ and Q₈₃ each independently represents an atomic group necessary for forming a 6-membered nitrogen-containing aromatic hetero ring;~~

~~R₈₁, R₈₂ and R₈₃ each independently represents a hydrogen atom, an aliphatic hydrocarbon group, an aryl group or a hetero ring group;~~

~~L₁, L₂ and L₃ each independently represents a linking group; and~~

~~Y represents a nitrogen atom or a 1,3,5-benzenetriyl group.~~

2-3. (canceled).

4. (previously presented): The photodetector according to claim 1,
wherein the ionization potential of said at least one electron transporting organic material
is 6.0 eV or more.

5-11. (canceled).

12. (previously presented): The photodetector according to claim 1, further
comprising:
at least one transparent electrode; and
at least one electrode,
wherein said at least one electron transporting organic material is interposed between said
at least one transparent electrode and said at least one electrode.

13. (canceled).

14. (previously presented): The photodetector according to claim 1, further
comprising:
at least one transparent electrode; and
at least one electrode,

wherein said at least one electron transporting organic material and said at least one hole transporting organic material are interposed between said at least one transparent electrode and said at least one electrode.

15. (previously presented): The photodetector according to claim 1,
wherein said at least one electron transporting organic material is deposited in vacuum.

16. (previously presented): The photodetector according to claim 1,
wherein at least one of said at least one electron transporting organic material and said at least one hole transporting organic material is deposited in vacuum.

17. (previously presented): An imaging device comprising a photodetector according to claim 1.

18. (original): The imaging device according to claim 17, further comprising:
a substrate;
a first layer comprising a first photodetector; and
a second layer comprising a second photodetector.

19. (original): The imaging device according to claim 17, further comprising:
a substrate;

a first layer comprising a first photodetector;
a second layer comprising a second photodetector; and
a third layer comprising a third photodetector.

20. (original): The imaging device according to claim 19,
wherein the first photodetector comprises a blue light photodetector; the second
photodetector comprises a green light photodetector; and the third photodetector comprises a red
light photodetector.